

Title (en)
SPUTTERED PIEZOELECTRIC MATERIAL

Title (de)
PIEZOELEKTRISCHES SPUTTERMATERIAL

Title (fr)
MATÉRIAU PIÉZOÉLECTRIQUE PULVÉRISÉ

Publication
EP 2401414 B1 20200603 (EN)

Application
EP 10746695 A 20100223

Priority
• US 2010025012 W 20100223
• US 39364409 A 20090226

Abstract (en)
[origin: US2010213795A1] Piezoelectric actuators having a composition of $\text{Pb}_{1.00+x}(\text{Zr}_{0.52}\text{Ti}_{0.48})_{1.00-y}\text{O}_3\text{N}_{by}$, where $x \geq -0.02$ and $y > 0$ are described. The piezoelectric material can have a Perovskite, which can enable good bending action when a bias is applied across the actuator.

IPC 8 full level
H01L 41/09 (2006.01); **H01L 41/187** (2006.01); **H01L 41/316** (2013.01)

CPC (source: EP KR US)
B41J 2/14233 (2013.01 - EP US); **B41J 2/161** (2013.01 - EP US); **B41J 2/1642** (2013.01 - EP US); **B41J 2/1646** (2013.01 - EP US); **C23C 14/34** (2013.01 - KR); **H10N 30/076** (2023.02 - EP US); **H10N 30/2047** (2023.02 - EP US); **H10N 30/708** (2024.05 - EP); **H10N 30/8554** (2023.02 - EP US); **Y10T 29/42** (2015.01 - EP US)

Citation (examination)
• A KOOCHKEZADEH ET AL: "4-312 The thermal effects of platinum bottom electrodes on PZT sputtered thin films used in MEMS devices", 1 September 2008 (2008-09-01), XP055331291, Retrieved from the Internet <URL:http://www.ets.ifmo.ru/tomasov/konferenc/AutoPlay/Docs/Volume%204/9_08.pdf> [retrieved on 20161222]
• DONG-YEON PARK ET AL: "(100) Oriented Platinum thin Films Deposited by Dc Magnetron Sputtering On SiO₂/Si Substrates", MRS PROCEEDINGS, vol. 441, 1 January 1996 (1996-01-01), XP055331293, DOI: 10.1557/PROC-441-335

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US 2010213795 A1 20100826; **US 8164234 B2 20120424**; CN 102333904 A 20120125; CN 102333904 B 20130807; EP 2401414 A1 20120104; EP 2401414 A4 20131009; EP 2401414 B1 20200603; JP 2012519378 A 20120823; KR 101312485 B1 20131001; KR 20110120342 A 201111103; US 2012177815 A1 20120712; WO 2010099091 A1 20100902

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